

What is claimed is:

1. A distributed component system in a network comprising:  
a client node configured to process client activation requests; and  
a server node configured to monitor activation requests from the client node, said node operating to enable the client node to activate remote components on available server nodes without specific names or capabilities of nodes in the network servicing the requests.

2. The system of claim 1, wherein said network comprises a local-area network, a wide-area network, or Internet.

3. The system of claim 1, wherein said activation requests are processed by a client node that includes enhancements to a network protocol of the client node.

4. The system of claim 1, wherein said server node include enhancements to a network protocol of the server node.

5. The system of claim 1, wherein said distributed system comprises a DCOM framework.

1           6.    A distributed computing system in a network having a  
2   client and a server, the system comprising:

3           a first module configured to augment activation capabilities  
4   of the client by intercepting and processing machine-independent  
5   client activation requests; and

6           a second module coupled to the server, said second module  
7   configured to monitor requests on the server by the client, said  
8   first and second modules enabling the client to trigger creation  
9   of remote components without specific names or capabilities of  
10   network nodes servicing that creation.

11           B 7.   A method comprising:

12           receiving a machine-independent activation request from a  
13   client in a network;

14           multicasting said activation request to the network; and

15           receiving capability information from servers available to  
16   service said activation request.

17           8.    The method of claim 7, wherein the capability  
18   information includes a list of server IP addresses or UNC names  
19   of servers that have the ability to service a request for a  
20   specific CLSID.

1           9. The method of claim 7, wherein the capability  
2 information includes an interface through a CLSID directly.

1           10. A method comprising:  
2           monitoring at a server a specific port to receive a machine-  
3 independent client activation request within a network;  
4           retrieving a client address from an IP packet associated  
5 with the request; and  
6           returning capability information of the server to the client  
7 address.

1           11. The method of claim 10, wherein monitoring the specific  
2 port includes monitoring a port that is tied to a multicast IP  
3 address.

1           12. The method of claim 10, wherein returning includes  
2 returning a server IP address.

1           13. The method of claim 10, wherein returning includes  
2 using a distributed system creation mechanism to create, package,  
3 and return an interface pointer in a location transparent form.

1 14. A method comprising:  
2 receiving a machine independent activation request from a  
3 client in a network;  
4 multicasting said activation request to the network;  
5 B1 requesting capability information from servers available to  
6 service said activation request;  
7 monitoring a port that is tied to a multicast IP address;  
8 retrieving a client address from an IP packet; and  
9 returning capability information of the server to the client  
10 address.

1 15. The method of claim 14, further comprising:  
2 providing a CLSID, an interface identifier, a maximum and  
3 minimum response wait time, a maximum and minimum response count,  
4 and whether server names or IP addresses should be returned,  
5 before the client requests capability information from the  
6 servers.

1 16. The method of claim 15, wherein returning capability  
2 information includes returning one to many server names or IP  
3 addresses capable of servicing said activation request for the  
4 particular CLSID and information identifier requested.

1 17. The method of claim 15, wherein returning capability  
2 information includes returning a pointer to the interface  
3 identifier.

1 18. The method of claim 17, wherein said pointer is  
2 packaged into a location transparent form.

1 19. The method of claim 18, wherein the location  
2 transparent form is a DCOM remote OBJREF in the form of a MEOW  
3 packet.

1 20. A computer program, residing on a computer readable  
2 medium, the program comprising executable instructions that  
3 enable the computer to:

4 receive a machine-independent activation request from a  
5 client in a network;

6 multicast said activation request to the network; and

7 receive capability information from servers available to  
8 service said activation request.

1           21. A computer program, residing on a computer readable  
2 medium, the program comprising executable instructions that  
3 enable the computer to:

4           monitor at a server a specific port that is tied to a  
5 multicast IP address to receive a machine-independent client  
6 activation request within a network;

7           retrieve a client address from an IP packet associated with  
8 the request; and

9           return capability information of the server to the client  
10 address.

11           22. A computer program, residing on a computer readable  
12 medium, the program comprising executable instructions that  
enable the computer to:

1           receive a machine-independent activation request from a  
2 client in a network;

3           multicast said activation request to the network;

4           request capability information from servers available to  
5 service said activation request;

6           monitor a port that is tied to a multicast IP address;

7           retrieve a client address from an IP packet; and

8           return capability information of the server to the client  
9 address.

1           23. A distributed component network comprising:  
2           client nodes configured to be able to request activation of  
3           remote components at run-time without specific names or  
4           capabilities of nodes servicing those requests; and  
5           server nodes operating to monitor the requests and respond  
6           appropriately to service the requests.